



for

LED



GooLED

GooLED-LG-8630 Pin Fin Heat Sink  $\Phi$ 86.5mm for LG Innotech

### Features VS Benefits

- \* The GooLED-LG-8630 LG Innotech Pin Fin LED Heat Sinks are specifically designed for luminaires using the LG Innotech LED engines.
- \* Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
- \* For spotlight and downlight designs from 1,200 to 3,200 lumen.
- \* Thermal resistance range  $R_{th}$  2.5°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of LG Innotech COB series.
- \* Diameter 86.5mm - standard height 30.0mm Other heights on request.
- \* Forged from highly conductive aluminum.

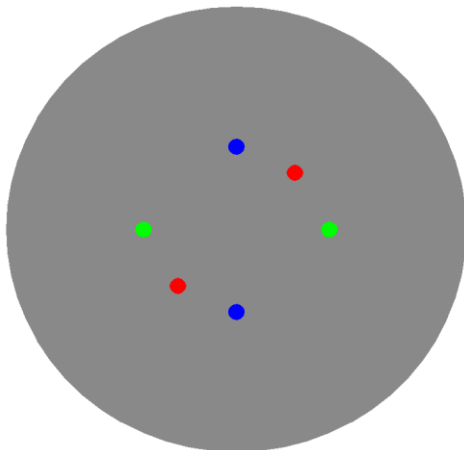
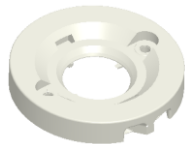


### Zhaga LED engine and radiator assembly is a unified future international standardization

- \* Below you find an overview of LG Innotech COB's and LED modules which standard fit on the Pin Fin LED Heat Sinks.
- \* In this way mechanical after work and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED Pin Fin LED Heat Sink.



LG Innotech



### LG Innotech LED Modules directly Mounting Options

#### LG Innotech 42W&56W COB series.

- LEMWM28D80xxxxxx;
- LEMWM28D90xxxxxx;
- LEMWM28E80xxxxxx;
- LEMWM28E90xxxxxx;

With the Zhaga Book 3 holders for the green indicator marks.  
 TE Connectivity Holder: 2213480-1;  
 BJB Holder:47.319.2030.50;  
 Without the holders for the blue indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

#### LG Innotech 21W&32W COB series.

- LEMWM24980xxxxxx;
- LEMWM24990xxxxxx;
- LEMWM24B80xxxxxx;
- LEMWM24B90xxxxxx;

With the Zhaga Book 3 holders for the green indicator marks.  
 TE Connectivity Holder: 2213130-1;  
 BJB Holder:47.319.2011.50;  
 Without the holders for the red indicator marks.  
 Direct mounting with machine screws M3x6.5mm.  
 With the LEDiL products:  
 Olivia series: FN14637-S; FN14828-M;

Mounting Options and Drawings & Dimensions

Example:GooLED-LG-8630-B-1,2

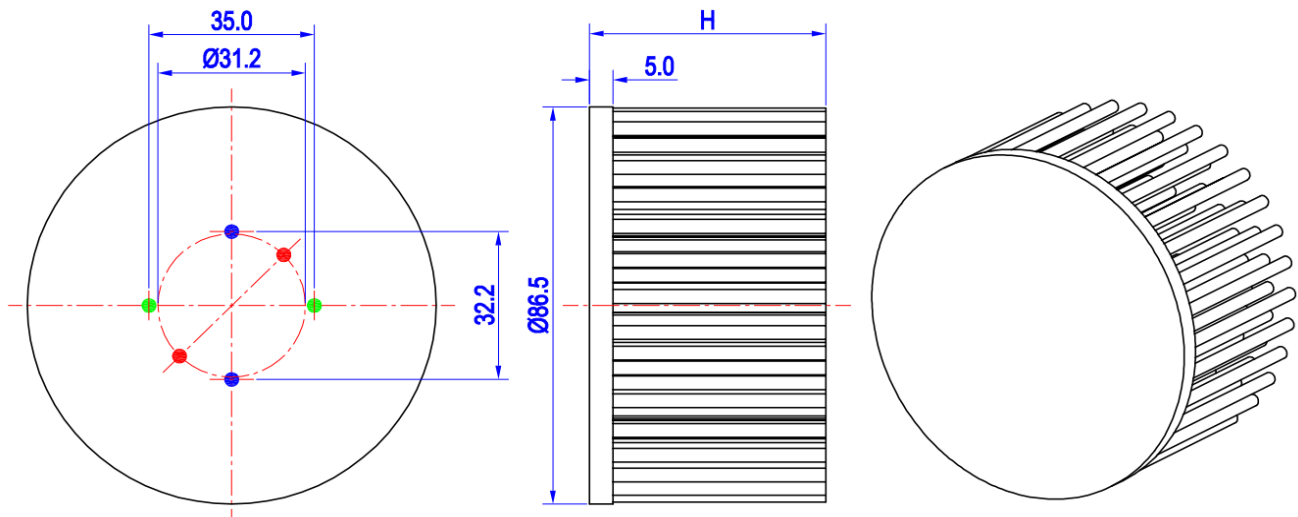
Example:GooLED-LG-86 **1** - **2** - **3**

- 1** Height (mm)
- 2** Anodising Color  
B-Black  
C-Clear  
Z-Custom
- 3** Mounting Options - see graphics for details Combinations available  
Ex.order code - 12  
means option 1 and 2 combined

Notes:

- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MingfaTech.
- MingfaTech reserves the right to change products or specifications without prior notice.

MOUNTING OPTION	Module type	Holder NO.	LEDiL products		THREAD	THREAD DEPTH	THREAD HOLE DISTANCE
			Stella Series	Olivia series			
1	21W&32W COB	/			M3	6.5mm	31.2mm/ 2-@180°
2	42W&56W COB	/			M3	6.5mm	32.2mm/ 2-@180°
3	21W&32W COB	BJB Holder 47.319.2011.50	/	FN14637-S; FN14828-M;	M3	6.5mm	35.0mm/ 2-@180° (Zhaga Book 3)
		TE Holder 2213130-1					
	42W&56W COB	BJB Holder 47.319.2030.50					
		TE Holder 2213480-1					





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GooLED-LG-8630 Pin Fin Heat Sink Φ86.5mm for LG Innotek

The product data table

	Model No.	GooLED-LG-8630
	Heatsink Size	Φ86.5xH30mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	152.0
	Dissipated power (T <sub>hs-amb</sub> ,50°C)	20.0 (W)
	Cooling surface area (mm <sup>2</sup> )	48926
	Thermal Resistance (R <sub>hs-amb</sub> )	2.5 (°C/W)

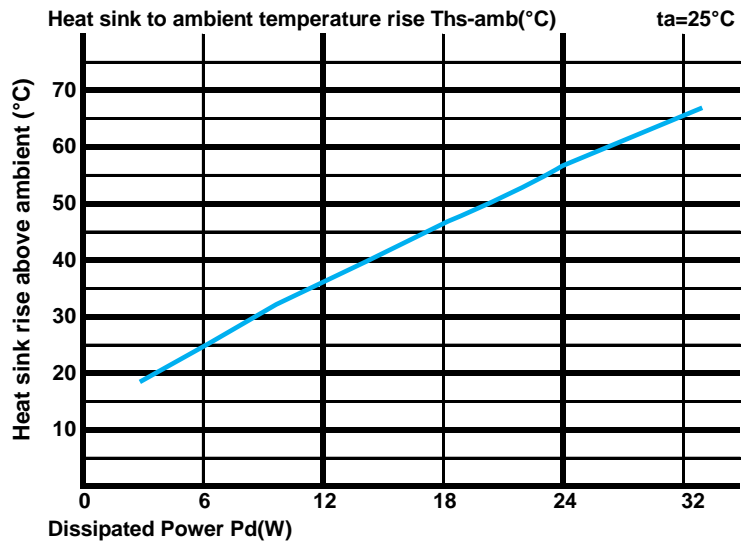
The thermal data table

\* Please be aware the dissipated power Pd is not the same as the electrical power Pe of a LED module.

\*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

Pd - Dissipated power ; Pe - Electrical power ; ηL = Light efficiency of the LED module;

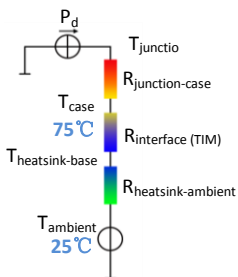
Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W)	Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C)
		GooLED-LG-8630	
6.0		4.00	24.0
12.0		2.92	35.0
18.0		2.56	46.0
24.0		2.33	56.0
32.0		2.03	65.0



\*The aluminum substrate side of the package outer shell is thermally connected to the heat sink via TIM (Thermal interface material).

MingFa recommends the use of a high thermal conductive interface between the LED module and the LED cooler.

Either thermal grease, A thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended.



\*Thermal resistance is a heat property and a measurement of a temperature difference by which an object or material resists a heat flow.

Geometric shapes are different, the thermal resistance is different. Formula:  $\theta = (T_{hs} - T_a) / P_d$

$\theta$  - Thermal Resistance [°C/W]; T<sub>hs</sub> - Heatsink temperature; T<sub>a</sub> - Ambient temperature;

\*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package outer shell is R<sub>junction-case</sub>, the thermal resistance of the TIM outside the package is R<sub>interface (TIM)</sub> [°C/W], the thermal resistance with the heat sink is R<sub>heatsink-ambient</sub> [°C/W], and the ambient temperature is T<sub>ambient</sub> [°C].

\*Thermal resistances outside the package R<sub>interface (TIM)</sub> and R<sub>heatsink-ambient</sub> can be integrated into the thermal resistance R<sub>case-ambient</sub> at this point. Thus, the following formula is also used:

$$T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot P_d + T_{ambient}$$